

11 Demersal Shelf Rockfishes (Executive Summary)

by

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11.0 Introduction

For 2005, GOA rockfish have been moved to a biennial stock assessment schedule to coincide with new survey data. This year we present an executive summary with last year's assessment updated using recent fish weight data to update our estimate of biomass. Last year's full stock assessment is on the web (O'Connell et al. 2003, <http://www.afsc.noaa.gov/refm/docs/2003/GOAdemersalRF.pdf>).

We continue to use a habitat-based stock assessment. Total yelloweye rockfish biomass is estimated for each management area in the Southeast Outside subdistrict as the product of density, mean fish weight, and area estimates of DSR habitat. Yelloweye rockfish density is derived using line transects conducted from an occupied submersible. A harvest rate of $F=M$ (0.02) is used to set ABC. The recommended ABC for yelloweye rockfish is increased 10% to account for other species in the assemblage.

11.1 Summary of Major Changes

The only new information available is updated fish weight data for the EYKT, CSEO and SSEO areas collected during the fall 2003/winter 2004 commercial fishery. This information was used to update our estimate of biomass. Mean weight for yelloweye rockfish was down 5% for CSEO and SSEO and 13% for EYKT compared to the 2003 assessment. Consequently the biomass estimate and recommended ABC is lower for 2005 than that advanced for the 2004 fishery.

Statistic	CSEO	EYKT	SSEO	NSEO	Total
Survey year	2003	2003	1999	2001	
Density [D] (no./km ²)	1864.7	3557.2	1878.9	1420	
s.e. [D]	209.21	611.84	321.48	446.4	
CV(D)	0.1122	0.172	0.1711	0.3144	
90% Lower CL density	1549.25	2654.70	1415.86	808.89	
90% Upper CL density	2244.38	4766.51	2493.37	2492.79	
mean wt (kg) yelloweye	2.95	3.74	3.25	2.98	
Std Error (wt)	0.05922	0.072879	0.057768	0.09533	
CV(Wt)	0.02	0.02	0.02	0.03	
Habitat sq km	1414	742	732	472	3360
biomass mt	7801.69	9895.27	4469.90	1997.32	24164.18
Lower 90% CL biomass (mt)	6471.85	7458.95	3375.19	1202.34	18508.33
Upper 90% CL biomass (mt)	9404.78	13127.37	5919.67	3317.93	31769.75
Harvest rate $F=0.02$, yelloweye mt	129	149	68	24	370
proposed 2005 DSR ABC					
(yelloweye ABC/0.9), mt	144	166	75	27	410

We recommend that the new ABC of 410 mt from the revised data for use in the 2005 fishery. This ABC is lower than last year's ABC of 450 mt. The corresponding reference values for DSR are summarized below. The stock is not overfished, nor is it approaching overfishing status. The primary reference values are shown in the following table.

Statistic	2005	2006
M	0.020	0.020
Biomass Estimate	18,508	18,508
F ofl (35%)	0.031	0.031
Max F 40%	0.025	0.025
F abc	0.020	0.020
F (avg 94-98)	0.020	0.020
F (50% F Max)	0.0125	0.0125
Overfishing Level ¹	640	640
Maximum Allowable ABC ¹	510	510
Recommended ABC ¹	410	410

¹Includes 10% for non-yelloweye DSR species

11.2 Responses to SSC Comments

The SSC had no concerns specific to the DSR assessment. They have requested that additional analysis be provided on the possibility of localized depletion in rockfish stocks. This assessment already estimates density and biomass on a management area basis but we will look at further subdividing this information. These analyses will be conducted for the next full stock assessment cycle in 2005.